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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/057,783	01/25/2002	Anthony C. Forster	AFOR-P01-001	9343

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EXAMINER

KAM, CHIH MIN

ART UNIT PAPER NUMBER

1653

DATE MAILED: 02/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Advisory Action</b> <b>Before the Filing of an Appeal Brief</b>	<b>Application No.</b> 10/057,783	<b>Applicant(s)</b> FORSTER ET AL.	
	<b>Examiner</b> Chih-Min Kam	<b>Art Unit</b> 1653	

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 08 December 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☐ The reply was filed after a final rejection, but prior to filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### NOTICE OF APPEAL

2. ☐ The reply was filed after the date of filing a Notice of Appeal, but prior to the date of filing an appeal brief. The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

#### AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
- (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
- (b) ☐ They raise the issue of new matter (see NOTE below);
- (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
- The status of the claim(s) is (or will be) as follows:
- Claim(s) allowed: 7-10, 19, 24, 31, 33, 37, 39 and 52-55.
- Claim(s) objected to: 2, 4-6, 13, 15-17, 25-30, 32, 36, 42 and 43.
- Claim(s) rejected: 1, 11, 14, 23, 34, 35, 38, 40, 41 and 44.
- Claim(s) withdrawn from consideration: \_\_\_\_\_.

#### AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

#### REQUEST FOR RECONSIDERATION/OTHER

11. ☐ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: \_\_\_\_\_.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). \_\_\_\_\_
13. ☒ Other: see Interview Summary.

In the amendment of December 8, 2004, claims 1, 2, 5-10 and 15 have been amended; claims 45-51 have been cancelled; and new claims 52-55 have been added. The cancellation of claims 45-51 resolves the issues of new matter and 35 U.S.C. 112, first paragraph; the amendment to claims 2, 4, 5 and 8, and applicant's response resolves the issues of objection, 35 USC 112, second paragraph, and 35 U.S.C. 102(b) (Hohsaka et al., J. Am. Chem. Soc. 121, 12194-12195 (1999)). However, the amendment does not resolve the current issue of 35 U.S.C. 103(a), claims 1, 11, 14, 23, 38, 40, 41 and 44 remain rejected under 35 U.S.C. 103(a), and claims 34 and 35 are rejected under 35 USC 112, second paragraph as follows:

1. Claims 1, 11, 14, 23, 38, 40, 41 and 44 remain rejected under 35 U.S.C. 103(a) as being unpatentable over by Rothschild et al. (U. S. Patent 5,643,772, July 1, 1997). See paragraph 16 of the previous Office Action dated September 22, 2004.

In response, applicants indicate that Rothschild fails to teach or suggest all the claim elements of claim 1, e.g., a translation system with highly selective incorporation (i.e. at least 80% incorporation) at each codon of an exogenous mRNA to form a peptidomimetic product. The examples in Rothschild using wheat germ extracts do not appear to have achieved any highly selective incorporation. Rothschild fails to disclose which combinations of purified factors would be necessary or sufficient to achieve highly selective incorporation. In fact, in the absence of additional factors, the combination of the translation factors recited by Rothschild, i.e. initiation factor-I (IF-1), IF-2, IF-3, elongation factor T (EF-Tu), and termination factors would not be expected to generate a highly selective translation system. Furthermore, Mamaev et al. (2004) Analytical Biochemistry Vol. 326(1), p25-32 (Exhibit B), relates to a high efficiency cell-free translation system (E. coli S30 cell-free translation system) and claims that their 27-67% efficiency of labeling is superior to the previous systems that use elongator tRNAs species. The examples in Rothschild are based on elongator tRNAs, and thus expected to display this low selectivity (pages 12-15 of the response).

Applicants response has been considered, however, the argument is not found persuasive because Rothschild suggests the combinations of purified translation factors such as initiation factor-I (IF-1), IF-2, IF-3, elongation factor T (EF-Tu), and termination factors have been used successfully to translate mRNA into protein (column 8, lines 7-12), and also indicates to incorporate more than one marker into a single species of protein utilizing different tRNAs which are each misaminoacylated with different markers, e.g., coumarin amino acid used to misaminoacylate a tryptophan tRNA and a dansyllysine used to misaminoacylate a lysine tRNA (column 21, lines 58-67; Fig. 5; Examples 1-2). While the claimed cell-free translation system comprises translation factors and more than one elongator tRNA species which is charged with a non-naturally occurring amino acid or amino acid analog, wherein the translation system translates added mRNA with highly selective incorporation at each codon, the claim does not indicate what translation factors are included in the translation system. Although Rothschild does not specifically indicate the translation system has highly selective incorporation at each codon, the reference does suggest the use of purified translation factors, i.e. initiation factor-I (IF-1), IF-2, IF-3, elongation factor T (EF-Tu) and termination factors in the translation system, which also includes tRNA molecules misaminoacylated with markers such as non-native amino acids, amino acid analogs or derivatives, thus it would be expected that the translation system suggested by Rothschild, which contains purified translation factors, translates mRNA with a highly selective incorporation at each codon. Regarding Mamaev et al. (2004), it is a post-filing reference, which uses E. coli S30 extract translation system, not the translation system having purified translation factors.

2. Claims 34 and 35 are rejected under 35 U.S.C. 112, second paragraph as being indefinite. Claims 34 and 35 recite the limitation "one or more of each codon" in lines 1-2. There is insufficient antecedent basis for this limitation in claim 7, which has been amended to delete the term "each codon".

3. Claims 2, 4-6, 13, 15-17, 25-30, 32, 36, 42 and 43 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

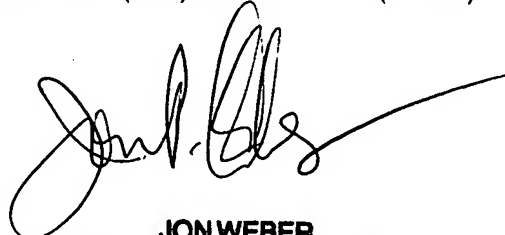
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chih-Min Kam whose telephone number is (571) 272-0948. The examiner can normally be reached on 8.00-4:30, Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jon Weber can be reached at 571-272-0925. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chih-Min Kam, Ph. D. *CMK*  
Patent Examiner

CMK  
February 19, 2005

  
**JON WEBER**  
SUPERVISORY PATENT EXAMINER